

In the Claims

1. (Currently amended) An apparatus for the control of the temperature of a medium within a space by utilizing a temperature-modifying device, said apparatus comprising:
a controller connected for controlling a thermal output of said temperature-modifying device to achieve said desired temperature, and
an interface connected for providing information to and from said controller, said interface having ~~at least one~~ a substantially linearly moveable member with ~~at least one~~ separate positions for setting ~~at least one program~~ a plurality of programs within said programmable controller and a distinct position for running said temperature-modifying device.
2. (Original) The apparatus of Claim 1, wherein said interface further includes a position for setting a clock for use with said program.
3. (Canceled)
4. (Currently amended) The apparatus of Claim 1 ~~[[3]]~~, wherein said plurality of programs include one or more selected from the group consisting of a weekday program, a weekend program, and a daily program.
5. (Original) The apparatus of Claim 1, wherein said controller further comprises an implementing circuit, a temperature comparitor, and a memory.

6. (Original) The apparatus of Claim 5, wherein said implementing circuit, said temperature comparator, and said memory incorporate an integrated circuit having a microprocessor and a programmable memory chip.

7. (Original) The apparatus of Claim 1, wherein said interface further comprises a display.

8. (Previously presented) The apparatus of Claim 7, wherein said display incorporates an LCD.

9. (Original) The apparatus of Claim 1, wherein said temperature-modifying device is one or more selected from the group consisting of an HVAC system, a geothermal system, a gas furnace, a natural gas furnace, an electric furnace, a gas water heater, and an electric water heater.

10. (Currently amended) An apparatus for the control of the temperature of a medium within a space by utilizing a temperature-modifying device, said apparatus comprising:

a logic circuit for comparing an existing temperature of said medium to a temperature desired to be achieved of said medium, and controlling a thermal output of said temperature-modifying device to achieve said desired temperature of said medium;

a memory for storing information received from said logic circuit;

an interface connected for inputting information to said logic circuit, said interface including ~~at least one~~ a substantially linearly moveable member having ~~at least a first position for~~

~~setting a program~~ separate positions for setting a plurality of programs within said logic circuit, a ~~second~~ position for setting a clock for use with said program within said logic circuit, and a ~~third~~ position for running said temperature-modifying device; and

a display for displaying information processed by said logic circuit.

11. (Canceled)

12. (Canceled)

13. (Currently amended) The apparatus of Claim 10[[12]], wherein said plurality of programs include one or more selected from the group consisting of a weekday program, a weekend program, and a daily program.

14. (Original) The apparatus of Claim 10, wherein said logic circuit comprises a microprocessor.

15. (Original) The apparatus of Claim 10, wherein said display incorporates an LCD.

16. (Original) The apparatus of Claim 10, wherein said temperature-modifying device is one or more selected from the group consisting of an HVAC system, a geothermal system, a gas furnace, a natural gas furnace, an electric furnace, a gas water heater, and an electric water heater.

17. (Previously presented) A thermostat for the control of the temperature of a medium within a space by utilizing a temperature-modifying device comprising:

a sensor for sensing ambient temperature;

a microprocessor for receiving said ambient temperature from said sensor and comparing said ambient temperature to a set point temperature, said microprocessor having an output for sending an output signal to said temperature-modifying device based upon said comparison;

an interface connected for inputting information to said microprocessor, said interface including a substantially linearly moveable member having more than one position for setting a plurality of programs within said microprocessor, and an additional position for running said temperature-modifying device; and

a display for displaying information received from the microprocessor.

18. (Original) The thermostat of Claim 17, wherein said plurality of programs include one or more selected from the group consisting of a weekday program, a weekend program, and a daily program.

19. (Original) The thermostat of Claim 17, wherein said temperature-modifying device is one or more selected of HVAC system, a geothermal thermal system, a gas furnace, a natural gas furnace, an electric furnace, a gas water heater, and an electric water heater.